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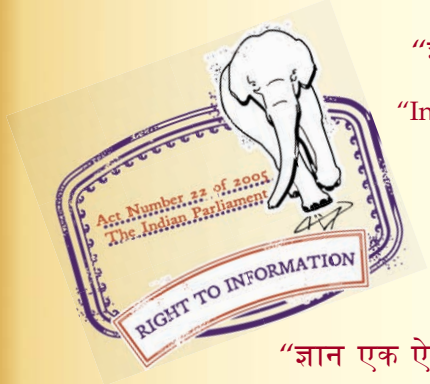

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Indian Standard

SPECIFICATION FOR HANDLOOM WOOL BLANKETS BRICK RED

(First Revision)

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SPECIFICATION FOR HANDLOOM WOOL BLANKETS BRICK RED

(First Revision)

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Indian Standard

SPECIFICATION FOR HANDLOOM WOOL BLANKETS BRICK RED

(First Revision)

0. FOREWORD

0.1 This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 11 September 1980, after the draft finalized by the Handloom and Khadi Sectional Committee had been approved by the Textile Division Council.

0.2 This standard was originally published in 1957 covering only one variety of blankets. The present revision incorporates another variety, specified as Variety No. 1 with the original one as Variety No. 2, covered earlier in IS : 2901-1964* which consequently stands withdrawn. Other important changes made in the standard by way of this revision are as follows:

a) Use of coarser grade of wool, with the requirement to test the fibre fineness, has been prescribed;

b) Colour fastness requirements have been modified; and

c) Requirements for relaxation shrinkage, scouring loss and moth-proofing have been added.

0.3 In the formulation of this standard, assistance has been drawn from IND/TC/1402 (j) ' Blanket, hospital, brick red ' issued by the Ministry of Defence, Government of India.

0.4 To familiarize the industry with the International System (SI) units, the recommended SI units for use in the textile industry are given at the end of the standard (*see* Appendix B).

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960†. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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*Specification for handloom woollen blanket, scarlet.

†Rules for rounding off numerical values (*revised*).

1. SCOPE

1.1 This standard prescribes constructional particulars and other requirements for two varieties of handloom wool blankets, used in hospitals.

1.2 This standard does not specify general appearance and feel of the blankets (*see also* **3.3**).

2. MANUFACTURE

2.1 Yarn — The yarn used in the manufacture of blankets shall be spun on woollen system from wool having average fibre diameter between 31·00 and 32·69 microns and shall be free from admixture of non-wool fibres.

2.2 Blankets — The blankets shall be properly washed and shall be free from grease, soap, filling or any other admixture which would give fictitious mass or firmness.

2.2.1 The blankets shall be milled and given a raised finish.

2.2.2 The transverse ends of the blankets shall have 2·5 cm wide continuous piping of cotton long cloth. The piping shall be securely sewn to the body of the blanket with cotton sewing thread of 60s/3 (100 dtex × 3) count conforming to IS : 1720-1978*; the number of stitches per centimetre shall be not less than 4. The shade of the piping and sewing thread shall match closely to that of the blanket.

2.2.3 The blankets shall be rendered mothproof with dichlorodiphenyl trichloroethane (DDT), or otherwise heavily preserved with naphthalene.

NOTE — The manufacturer shall declare whether the blankets have been rendered mothproof or not.

2.2.4 The blankets when visually examined, both against light and on a flat surface shall not have more than one objectionable flaw per blanket. The objectionable flaws shall be those which immediately strike the eyes of the person examining the blankets and shall be deemed to include:

a) missing ends and picks,
b) floats,
c) cuts and holes,
d) stains,
e) weft bars and warp section marks, and
f) big slubs and knots.

*Specification for cotton sewing threads (*second revision*).

2.2.4.1 Reference may be made to IS : 4125-1967* for details of these flaws.

3. REQUIREMENTS

3.1 The constructional particulars of the blankets shall be as given in Table 1.

3.2 The blankets shall also conform to the requirements given in Table 2.

4. MARKING

4.1 The blankets shall be marked with the following:

a) Name of the material, with variety No.;
b) Manufacturer's name, initials or trade-mark, if any;
c) Month and year of manufacture; and
d) Length and width of the blankets.

4.1.1 The blankets may also be marked with the Standard Mark.

NOTE — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

5. PACKING

5.1 The blankets shall be packed in bales in conformity with the procedure laid down in IS : 741-1971†, or by the method given in **5.2** if specifically required by the buyer.

5.2 Fifteen blankets of the same variety shall be individually folded and placed one over the other. The folded blankets shall be wrapped in a layer each of polyethylene film, kraft paper and hessian (305 g/m^2) in such a way that hessian forms the outermost layer. Each layer shall have an overlap of minimum 10 cm. The outermost layer shall be suitably stitched with jute twine and the package made secure by means of steel strips or hoops of medium grade. The gross mass of the bale shall normally not exceed 40 kg.

6. SAMPLING

6.1 Lot — The quantity of blankets of the same variety, delivered to a buyer against a despatch note, shall constitute a lot.

*Glossary of terms pertaining to defects in fabrics.
†Code for inland packaging of woollen and worsted yarn and cloth (*first revision*).

TABLE 1 CONSTRUCTIONAL PARTICULARS OF HANDLOOM WOOL BLANKETS, BRICK RED

(*Clause* 3.1)

	Variety No.	Ends/ dm	Picks/ dm	Mass/ m^2	Mass per Blanket	Breaking Load on Strips, *Min* 15 × 20 cm		Length	Width	Weave
						Warpway	Weftway			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				g	kg	N (kgf)	N (kgf)	cm	cm	
	1	80	80	700	2·4	1 080 (110)	830 (85)	230	152	2/2 twill
	2	100	85	525	1·8	960 (98)	680 (70)	230	152	2/2 twill
Tolerance, Percent	—	± 5		± 5	± 5	—	—	± 2		—
Method of Test	—	IS : 1963-1969*		IS : 1964-1970†	Appendix A	IS : 1969-1968‡		IS : 1954-1969§		Visual

Note — 1 N (newton) is approximately equal to 0·102 kgf.

*Methods for determination of threads per decimeter in woven fabrics (*first revision*).
†Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*).
‡Method for determination of breaking load and elongation at break of woven textile fabrics (*first revision*).
§Methods for determination of length and width of fabrics (*first revision*).

TABLE 2 OTHER REQUIREMENTS OF HANDLOOM WOOL BLANKETS, BRICK RED

(*Clause* 3.2)

Sl No.	Characteristic	Requirement	Method of Test
(1)	(2)	(3)	(4)
i)	Relaxation shrinkage, percent, *Max*	4	IS : 665-1962*
ii)	Scouring loss, percent, *Max*	4	Appendix A
iii)	DDT, percent, *Min*	0·3	IS : 3522 (Part II). 1970†
iv)	Colour fastness to:		
	a) light	4 or better	IS : 2454-1967‡
	b) washing	3 or better	IS : 687-1966§
	c) organic solvents	4 or better	IS : 688-1956¶
	d) rubbing	3 or better	IS : 766-1959‖
v)	Average fibre diameter	31·00 to 32·69 microns	IS : 744-1977**

*Method for determination of relaxation shrinkage of woven fabrics containing wool.

†Methods for estimation of common preservatives used in the textile industry, Part II.

‡Method for determination of colour fastness of textile materials to artificial light (xenon lamp).

§Method for determination of colour fastness of textile materials to washings: Test 1 (*first revision*).

‖Method for determination of colour fastness of textile materials to rubbing.

¶Method for determination of colour fastness of textile materials to organic solvents.

**Method for determination of wool fibre diameter — Projection microscope method (*second revision*).

6.2 The conformity of a lot shall be determined on the basis of the tests carried out on samples from the lot.

6.3 Unless otherwise agreed to between the buyer and the seller, the number of blankets to be selected at random from a lot shall be according to Table 3. To ensure the randomness of selection, methods given in IS : 4905-1968* shall be followed.

*Methods for random sampling.

TABLE 3 SAMPLE SIZE AND CRITERION FOR CONFORMITY

(*Clause* 6.3)

LOT SIZE	SAMPLE SIZE	PERMISSIBLE NO. OF NON-CONFORMING BLANKETS	SUB-SAMPLE SIZE
(1)	(2)	(3)	(4)
Up to 100	8	0	
101 ,, 300	13	0	2
301 ,, 500	20	1	3
501 ,, 1 000	32	2	4
1 001 and above	50	3	5

6.4 Number of Tests and Criterion for Conformity

Characteristic(s)	*No. of Tests*	*Criterion for Conformity*
Visual examination, ends, picks, mass per blanket, length and width	According to col 2 of Table 3	Permissible number of non-conforming blankets does not exceed the corresponding number given in col 3 of Table 3
Mass per square metre, breaking load, relaxation shrinkage, scouring loss, DDT percent, colour fastness and fibre diameter	According to col 4 of Table 3	All the test specimens meet the relevant requirements

APPENDIX A

(*Tables* 1 *and* 2)

METHODS OF TEST

A-1. MASS PER BLANKET

A-1.1 Condition all blankets in the test sample to moisture equilibrium in standard atmosphere (65 ± 2 percent relative humidity and 27 ± 2°C temperature) for a period of 48 hours in such a way as to expose as far as possible all portions of the blankets to the atmosphere.

A-1.2 Measure the length and width of each blanket, correct to the nearest centimetre and determine the mass and correct to the nearest 10 g. Calculate the mass of the blanket of dimensions specified in Table 1.

A-2. SCOURING LOSS

A-2.1 Test Specimen — From each piece of the test sample cut a test specimen square in shape, with sides parallel to warp and weft threads, and weighing approximately 10 g.

A-2.2 Procedure

A-2.2.1 Heat the test specimen to constant mass in a drying oven at 105 ± 3°C and determine its mass accurately.

NOTE — Constant mass shall be deemed to have been reached, if the difference between the two successive weighings at an interval of 20 minutes is less than 0·05 percent.

A-2.2.2 Extract the above test specimen with a mixture of benzene and methyl alcohol in the proportion of 3 : 2 in a Soxhlet apparatus for 4 hours at the rate of 5 extractions per hour, by placing the specimen in a thimble and covering it with cotton wool previously extracted with the above mixture of benzene and methyl alcohol. Distil off the solvents from the extract. Heat the residue to a constant mass (*see* Note under **A-2.2.1**) at 105 ± 3°C and determine the mass accurately.

A-2.3 Calculations

$$\text{Scouring loss, percent} = 100 \times \frac{a + R}{b + R}$$

where

a = masss of the dry residue (**A-2.2.2**),

b = mass of the test specimen (**A-2.2.1**), and

R = moisture regain percent.

APPENDIX B

(*Clause* 0.4)

RECOMMENDED SI UNITS FOR TEXTILES

Sl No.	Characteristic	SI Unit		Application
		Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)
1)	Length	Millimetre	mm	Fibres
		Millimetre, centimetre	mm, cm	Samples, test specimens (as appropriate)
		Metre	m	Yarns, ropes, cordages, fabrics
2)	Width	Millimetre	mm	Narrow fabrics
		Centimetre	cm	Other fabrics
		Millimetre, centimetre	mm, cm	Samples, test specimens (as appropriate)
		Centimetre, metre	cm, m	Carpets, druggets, *DURRIES* (as appropriate)
3)	Thickness	Micrometre (micron)	µm	Delicate fabrics
		Millimetre	mm	Other fabrics, carpets, felts
4)	Linear density	Tex	tex	Yarns
		Millitex	mtex	Fibres
		Decitex	dtex	Filaments, filament yarns
		Kilotex	ktex	Slivers, ropes, cordages
5)	Diameter	Micrometre (micron)	µm	Fibres
		Millimetre	mm	Yarns, ropes, cordages
6)	Circumference	Millimetre	mm	Ropes, cordages
7)	Threads in fabric:			Woven fabrics (as appropriate)
	a) Lengthwise	Number per centimetre	ends/cm	
		Number per decimetre	ends/dm	
	b) Widthwise	Number per centimetre	picks/cm	
		Number per decimetre	picks/dm	
8)	Warp threads in loom	Number per centimetre	ends/cm	Reeds
9)	Stitches in knitted fabric:			Knitted fabrics (as appropriate)
	a) Lengthwise	Courses per centimetre	courses/cm	
		Courses per decimetre	courses/dm	
	b) Widthwise	Wales per centimetre	wales/cm	
		Wales per decimetre	wales/dm	

Sl No.	Characteristic	SI Unit		Application
		Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)
10)	Stitch length	Millimetre	mm	Knitted fabrics, made-up items
11)	Mass per unit area	Grams per square metre	g/m^2	Fabrics
12)	Mass per unit length	Grams per metre	g/m	Fabrics
13)	Twist	Turns per centimetre	turns/cm	Yarns, ropes (as appropriate)
		Turns per metre	turns/m	
14)	Test or gauge length	Millimetre, centimetre	mm, cm	Fibre, yarn and fabric specimens (as appropriate)
15)	Breaking load	Millinewton	mN	Fibres, delicate yarns (individual or skeins)
		Newton	N	Strong yarns (individual or skeins), ropes, cordages, fabrics
16)	Breaking length	Kilometre	km	Yarns
17)	Tenacity	Millinewton per tex	mN/tex	Fibres, yarns (individual or skeins)
18)	Twist factor or twist multiplier	Turns per centimetre × square root of tex	turns/cm $\times \sqrt{\text{tex}}$	Yarns (as appropriate)
		Turns per metre × square root of tex	turns/m $\times \sqrt{\text{tex}}$	
19)	Bursting strength	Newton per square centimetre	N/cm^2	Fabrics
20)	Tear strength	Millinewton, newton	mN, N	Fabrics (as appropriate)
21)	Pile height	Millimetre	mm	Carpets
22)	Pile density	Mass of pile yarn in grams per square metre per millimetre pile height	g/m^2/mm pile height	Pile carpets
23)	Elastic modulus	Millinewton per tex per unit deformation	mN/tex/unit deformation	Fibres, yarns, strands

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